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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,237	12/31/2001	Tameka Spence	KCC 4782 (K.C. No. 17,029	7293
321	7590	02/06/2004	EXAMINER	
SENNIGER POWERS LEAVITT AND ROEDEL ONE METROPOLITAN SQUARE 16TH FLOOR ST LOUIS, MO 63102			HALPERN, MARK	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 02/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/039,237	SPENCE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Mark Halpern	1731	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-7,9-20 and 23-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9-20 and 23-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7/23/03                      6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

- 1) Acknowledgement is made of Response received 11/6/2003.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 2) Claims 1, 3-4, 7, 9-14, 17-20, are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor (2,935,437) in view of Sisson (3,303,576).

Claims 1, 3-4, 12-14: Taylor discloses a method wherein paper stock pulp is deposited over a wire of Fourdrinier machine to form a paper web. The formed web is then dewatered and dried (Taylor, col. 2, lines 15-20, and col. 4, lines 54-59). Sodium bicarbonate is added to the furnish for pH control prior to depositing of the stock onto the forming wire. The pH range is from 4 to about 9.2 (Taylor, col. 2, lines 20-55). Taylor discloses that the formed web is treated according to conventional procedure, i.e. it is dried (Taylor, col. 4, lines 55-60), but fails to disclose that the web is dried by passing heated air through said web. Sisson discloses process of drying of paper web 11 carried on a Fourdrinier wire 12 and then on fabric carrier 16 into dryer where air the web is dried by passing air through said web (Sisson, col. 3, line 4 to col. 4, line 40, and Figure 1). It would have been obvious, to one skilled in the art at the time the invention

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was made, to combine the teachings of Taylor and Sisson, because such a combination would provide for improved drying of the web of Taylor as disclosed by Sisson (col. 1, lines 54-72).

Claims 7, 9-10, 17-19: the temperature of heated air is disclosed to be as high as 700 °F, or 371 °C (Sisson, col. 2, lines 1-5).

Claim 11: the paper stock may be made of broke, cuttings, scraps of paper (col. 2, lines 17-26) and rag fiber (col. 7, line 65).

Claim 20: the paper stock may be made of broke, cuttings, scraps of paper (col. 2, lines 17-26) and rag fiber (col. 7, line 65).

3) Claims 5-6, 15-16, 23-25, are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor in view of Sisson, and further in view of Espy (5,674,358). Taylor in view of Sisson is applied as above for claims 1, 12, Taylor in view of Sisson fail to disclose that the sodium bicarbonate is introduced into aqueous suspension in the amount from about 10 to about 15 % by weight of papermaking fiber. Espy discloses a process of repulping paper wherein 3.60 grams of sodium bicarbonate is introduced into an aqueous suspension of 1.5 liter of water containing 20 grams of paper (Example 1, col. 5-6, Table 1, sub-line (b), and Example 7, col. 7, line 58 to col. 8, line 3). The Espy percentage of sodium bicarbonate in an aqueous suspension calculates to 18 %. It would have been obvious, to one skilled in the art at the time the invention was made, to combine the teachings of Taylor and Sisson with Espy into the design of Taylor, because such a combination would improve the wet strength characteristics of the paper product of Taylor as disclosed by Espy (Abstract).

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4) Claims 1, 3-7, 9-20, 23-25, are rejected under 35 U.S.C. 103(a) as being unpatentable over Espy (5,6744,358) in view of Sisson (3,303,576).

Claims 1, 5-6, 12, 15-16, 23-25: Espy discloses a process of repulping paper wherein 3.60 grams of sodium bicarbonate is introduced into an aqueous suspension of 1.5 liter of water containing 20 grams of paper (Example 1, col. 5-6, Table 1, sub-line (b), and Example 7, col. 7, line 58 to col. 8, line 3). The Espy percentage of sodium bicarbonate in an aqueous suspension calculates to 18 %. The aqueous suspension is then formed into web sheets following standard procedures (col. 4, lines 38-68). Espy discloses that the formed web is dried, but fails to disclose that the web is dried by passing heated air through said web. Sisson discloses process of drying of paper web 11 carried on a Fourdrinier wire 12 and then on fabric carrier 16 into dryer where air the web is dried by passing air through said web (Sisson, col. 3, line 4 to col. 4, line 40, and Figure 1). It would have been obvious, to one skilled in the art at the time the invention was made, to combine the teachings of Espy and Sisson, because such a combination would provide for improved drying of the web of Espy as disclosed by Sisson (col. 1, lines 54-72).

Claims 3-4, 13-14: the pH of the aqueous suspension after sodium bicarbonate addition ranges from 7 to 12 (col. 2, lines 45-49).

Claims 7, 9-10, 17-19: the temperature of heated air is disclosed to be as high as 700 °F, or 371 °C (Sisson, col. 2, lines 1-5).

Claims 11, 20: Espy discloses paper and paperboard waste materials (broke), which are secondary cellulosic fibers (col. 1, lines 23-24).

***Response to Amendment***

- 5) Claims 1, 3-4, 7, 9-14, 17-20, rejection under 35 U.S.C. 103(a) as being unpatentable over Taylor (2,935,437) in view of Shannon (6,488,812), is withdrawn in view of further search of art in prior art.
- 6) Claims 5-6, 15-16, 23-25, rejection under 35 U.S.C. 103(a) as being unpatentable over Taylor in view of Shannon, and further in view of Espy (5,674,358), is withdrawn in view of further search of art in prior art.

***Conclusion***

- 7) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Halpern whose telephone number is 571-272-1190. The examiner can normally be reached on Mon-Fri, (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1190. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9309.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

  
Mark Halpern  
Patent Examiner  
Art Unit 1731